

**Amendment/Reply**

Applicant: Wassim Haddad

Serial No.: 10/697,951

Filed: October 31, 2003

Docket No.: 300110632-2

Title: METHOD AND ASSOCIATED APPARATUS FOR CREATING A NETWORK CONNECTION TO A NETWORK BASED ON BANDWIDTH

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**IN THE CLAIMS**

Please amend claims 1, 13, 15, 19, 24-27, 29, 33-37 as follows:

1. (Currently Amended) A method of attempting ~~the~~ a creation of an wireless IP network connection between a computing device and a wireless network by using a processor capable of determining bandwidth wherein the method comprises causing the processor to determine the bandwidth associated with at least a portion of the wireless network connection that it is desired to make to the computing device from the wireless network and further causing the processor to assess whether this bandwidth is available from the wireless network and pre-allocating the bandwidth to the computing device in response to determining that the bandwidth is available before commencing creating the connection.
2. (Original) A method according to claim 1 in which the method is used to hand-over a network connection to the network from an existing network.
3. (Original) A method according to claim 2 in which the network connection between the computing device and at least one of the network and the existing network comprises at least one channel.
4. (Original) A method according to claim 3 in which the method comprises causing the processor to determine the bandwidth required by the at least one of the channels within the network connection.
5. (Original) A method according to claim 3 in which the method allows some channels to be maintained with the existing network, whilst other channels are handed over to the network.
6. (Original) A method according to claim 3 in which the method allows some channels to be handed over to the network whilst other channels are terminated if they are not handed over to the network.

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7. (Original) A method according to claim 3 in which the computing device ranks the order of importance of the channels to be handed over to the network.
8. (Original) A method according to claim 2 in which the method is arranged to hand-over a connection between an existing network and a network each running the same protocol.
9. (Original) A method according to claim 8 in which the network is a cellular network and the method is used to hand-over a connection from an existing network comprising a first cell of a network and a network comprising a second, different, cell of that network.
10. (Original) A method according to claim 2 which is arranged to hand-over a connection from an existing network to a network operating on a different protocol.
11. (Original) A method according to claim 2 in which the bandwidth of connections that exist within the network are restricted in order to allow the network hand-over to take place.
12. (Original) A method according to claim 11 in which the restriction comprises termination.
13. (Currently Amended) A processing unit arranged to provide a wireless IP network capable of making at least one data connection to at least one computing device, said processing unit comprising a receiver arranged to receive data specifying the bandwidth requirements for the wireless network connection between the wireless network and a computing device that wishes to join the wireless network, a processor arranged to process data received from the receiver and to determine the bandwidth requirement of a device wishing to join the wireless network, and, if bandwidth is available the processor is further arranged to pre-allocate bandwidth to at least one connection prior to the device joining the wireless network.

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14. (Original) A processing unit according to claim 13 in which the receiver also provides a receiver of the wireless network.

15. (Currently Amended) A computing device capable of connecting to at least two wireless IP networks simultaneously, said computing device comprising a detector capable of detecting wireless IP networks and arranged to detect the existence of wireless IP networks to which the computing device is capable of connecting, a processor capable of determining bandwidth to generate a determined bandwidth and arranged to determine the bandwidth of at least one connection that it is desired to make between the computing device and a network, and a transmitter capable of transmitting determined bandwidth and arranged to transmit the determined bandwidth determined by the processor to a network detected by the detector to which it is possible to make a connection; said computing device further comprising a transceiver capable of establishing a connection to a first network and arranged to establish a connection with the first network over a first channel should sufficient bandwidth be available; and said transceiver capable of establishing a connection to a second network and arranged to establish a connection with the second network over a second channel simultaneously with the connection with the first network should sufficient bandwidth be available.

16. (Original) A computing device according to claim 15 which is capable of connecting to at least two networks operating different protocols.

17. (Original) A computing device according to claim 15 which is arranged to transfer at least a portion of an existing connection from an existing network to a network.

18. (Original) A computing device according to claim 17 which is arranged to prioritise portions of the existing connection to the existing network that should be maintained over and above other portions of the existing connection.

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19. (Currently Amended) A computer network comprising a processing unit capable of providing a network and arranged to provide a wireless network comprising at least one data connection to a computing device, said processing unit comprising a receiver arranged to receive data from the computing device, the network further comprising a processor arranged to determine bandwidth requirements of a wireless network connection and arranged to determine the bandwidth requirement for further wireless network connections that it is desired to make to the wireless network from one of said computing device and another computing device wishing to join the wireless network, the processor being further arranged to process data received from said receiver and to pre-allocate a bandwidth to a connection prior to a computing device joining the wireless network, wherein the processor is arranged to allocate a bandwidth to at least one of the connections.

20. (Original) A memory storing instructions, which when loaded on to a computer system cause that computer system to perform the method of claim 1.

21. (Original) A memory storing instructions, which when loaded on to a processing unit, cause that processing unit to perform as the processing unit of claim 13.

22. (Original) A memory storing instructions, which when loaded on to a computing device cause that computing device to perform as the computing device according to claim 15.

23. (Original) A memory storing instructions, which when loaded on to a network cause that network to perform as the network of claim 19.

24. (Currently Amended) A method of attempting ~~the~~ a creation of a network connection between a device and a wireless network by using a processing arrangement for processing data and being capable of determining the bandwidth of a wireless network connection, wherein the method comprises causing said processing arrangement to determine the bandwidth associated with at least a portion of the wireless network connection that is desired

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to be made between the device and the wireless network and further causing the processing arrangement to assess whether the bandwidth is available from the wireless network and pre-allocating the bandwidth to the device in response to determining that the bandwidth is available before commencing creation of the connection to the device.

25. (Currently Amended) A server arranged to provide a wireless network capable of making at least one wireless data connection to at least one computing arrangement, the server comprising a receiver for receiving data specifying the bandwidth requirements of a wireless network connection between the wireless network and a computing arrangement, and a processing arrangement for processing data, the processing arrangement being arranged to process data received from the receiver and to determine the bandwidth available on the wireless network, an allocator for pre-allocating bandwidth to a wireless connection, wherein the processing arrangement is arranged to control the allocator and further arranged to cause the allocator to pre-allocate a bandwidth to the at least one wireless data connection prior to forming the wireless connection if the bandwidth required to form a wireless connection is available.

26. (Currently Amended) A computer capable of connecting to at least two wireless IP networks simultaneously, said computer comprising a detector for detecting the existence of wireless networks to which the computer is capable of connecting, a bandwidth measurer for determining the bandwidth of one or more connections that it is desired to be made between the computer and a network, and a transmitter for transmitting the bandwidth determined by the bandwidth measurer to a network detected by the network detector, said computer further comprising a transceiver for establishing a connection to a first network over a first channel if sufficient bandwidth is available and for establishing a connection to a second network over a second channel simultaneously with the connection to the first network if sufficient bandwidth is available.

27. (Currently Amended) A method of attempting ~~the~~ a hand-over of a wireless network connection to a wireless network from an existing wireless network, the existing wireless

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network connection being with a computing device, the method being performed with a processor capable of determining bandwidth, the method comprising causing the processor to determine the bandwidth associated with at least a portion of the wireless network connection that it is desired to make to the computing device from the wireless network and further causing the processor to assess whether this bandwidth is available from the wireless network and pre-allocating the bandwidth to the computing device in response to determining that the bandwidth is available before commencing creating the connection to the wireless network and commencing creation of the wireless connection if bandwidth is available.

28. (Original) A method according to claim 27 in which the network and existing network are each running the same protocol.

29. (Currently Amended) A method of attempting the a hand-over of a network connection to a network from an existing network, the existing network connection being with a computing device and including a plurality of channels, the method being performed with a processor capable of determining bandwidth, the method comprising causing the processor to determine the bandwidth associated with each channel of the network connection that it is desired to hand-over from the existing network to the network and further causing the processor to assess whether this bandwidth is available from the network before commencing creating the connection to the network and commencing creation of the connection for channels of the network for which there is bandwidth available and maintaining channels with the existing network for which there is no bandwidth available in the network.

30. (Previously Presented) A method according to claim 29 in which the computing device ranks the order of importance of the channels to be handed over to the network.

31. (Original) A method according to claim 29 in which the network and existing network are each running the same protocol.

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32. (Original) A method according to claim 29 in which the network and existing network are each running a different protocol.

33. (Currently Amended) A processing unit arranged to provide a wireless network capable of making at least one wireless data connection including a plurality of channels to at least one computing device, said processing unit comprising a receiver arranged to receive data specifying the bandwidth requirements for the wireless network connection, including the bandwidth requirements for channels within the wireless connection, between the wireless network and a computing device that wishes to join the network, and a processor, the receiver being arranged to forward data that it receives to the processor and the processor being arranged to (a) process data it receives from the receiver, and (b) determine the bandwidth requirement of a device wishing to join the wireless network, the processor being further arranged to pre-allocate bandwidth to at least one channel prior to the device joining the wireless network if the processor determines that bandwidth is available.

34. (Currently Amended) A method of attempting ~~the~~ a creation of a wireless network connection between a computing device and a wireless network wherein the method comprises determining the bandwidth associated with at least a portion of the wireless network connection that it is desired to make to the computing device from the wireless network and assessing whether this bandwidth is available from the wireless network and pre-allocating the bandwidth to the computing device in response to determining that the bandwidth is available before commencing creating the connection.

35. (Currently Amended) A method of attempting ~~the~~ a creation of a wireless network connection between a device and ~~an~~ a wireless IP network, wherein the method comprises determining the bandwidth associated with at least a portion of the wireless network connection that is desired to be made between the device and the wireless network and assessing whether the bandwidth is available from the wireless network and pre-allocating the bandwidth to the computing device in response to determining that the bandwidth is available before commencing creation of the connection to the device.

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36. (Currently Amended) A method of attempting ~~the~~ a hand-over of a wireless network connection to a wireless network from an existing wireless network, the existing wireless network connection being with a computing device, the method comprising determining the bandwidth associated with at least a portion of the wireless network connection that is desired to make to the computing device from the wireless network and assessing whether this bandwidth is available from the wireless network and pre-allocating the bandwidth to the computing device in response to determining that the bandwidth is available before commencing creating the connection to the wireless network and commencing creation of the connection if bandwidth is available.

37. (Currently Amended) A method of attempting ~~the~~ a hand-over of a network connection to a network from an existing network, the existing network connection being with a computing device and including a plurality of channels, the method comprising determining the bandwidth associated with each channel of the network connection that it is desired to hand-over from the existing network to the network and assessing whether this bandwidth is available from the network before commencing creating the connection to the network, and commencing creation of the connection for channels of the network for which there is bandwidth available based on a ranking of importance of the channels to be handed over to the network.